

**DRAINAGE PLAN NARRATIVE (Revised)**  
**NPDES PERMIT APPLICATION**  
**(Revision 9/27/2016, Updates to Watershed B & Quarry Pit Sump QP-1)**  
**(Original 9/12/2016)**

**FILE COPY**

**AGGREGATES USA (TRI-CITIES AIRPORT), LLC QUARRY SEP 28 2016**

**Drainage Map**

The Drainage Map (Map 3) is drawn on the same 1-inch = 200-foot base map used for the Site-Property Map (Map 2). The map is in Section 10. Data plotted on this map and additional information is as follows:

**A. Area to be disturbed including topsoil, soil placement and stockpiles.**

Stockpile areas are shown on the Drainage Map as orange hatched areas.

Spoil (overburden) placement areas are shown as brown hatched areas.

**B. Present drainage patterns:**

Present drainage patterns are shown with dark blue arrows and the letter "P" on the Drainage Map.

The drainage map is divided into a series of non-interconnected drainage basins, shown by purple dashed lines and lettered "A" through "P". Data for these basins is shown in Table 1. These data include area of the drainage basin in acres, area of the basin within the affected/permitted boundary, and area within the basin to be disturbed by mining or associated activity within the next five years. Also determined were length of travel (Lt), maximum height of travel (Ht), the expected weighted runoff coefficient (C) at the end of the five year period, and the time of concentration (Tc) expected at the end of the five year period. This data was used with a computer program based on SCS-TP-149 - "A Method for Estimating Volume and Rate of Runoff in Small Watersheds".

**C. Expected drainage patterns, during mining and after reclamation, including location of discharge point:**

Not all of the watersheds are in Aggregates USA's affected area. In addition, several of these watersheds are not expected to be impacted by mining and associated activity in the next five years.

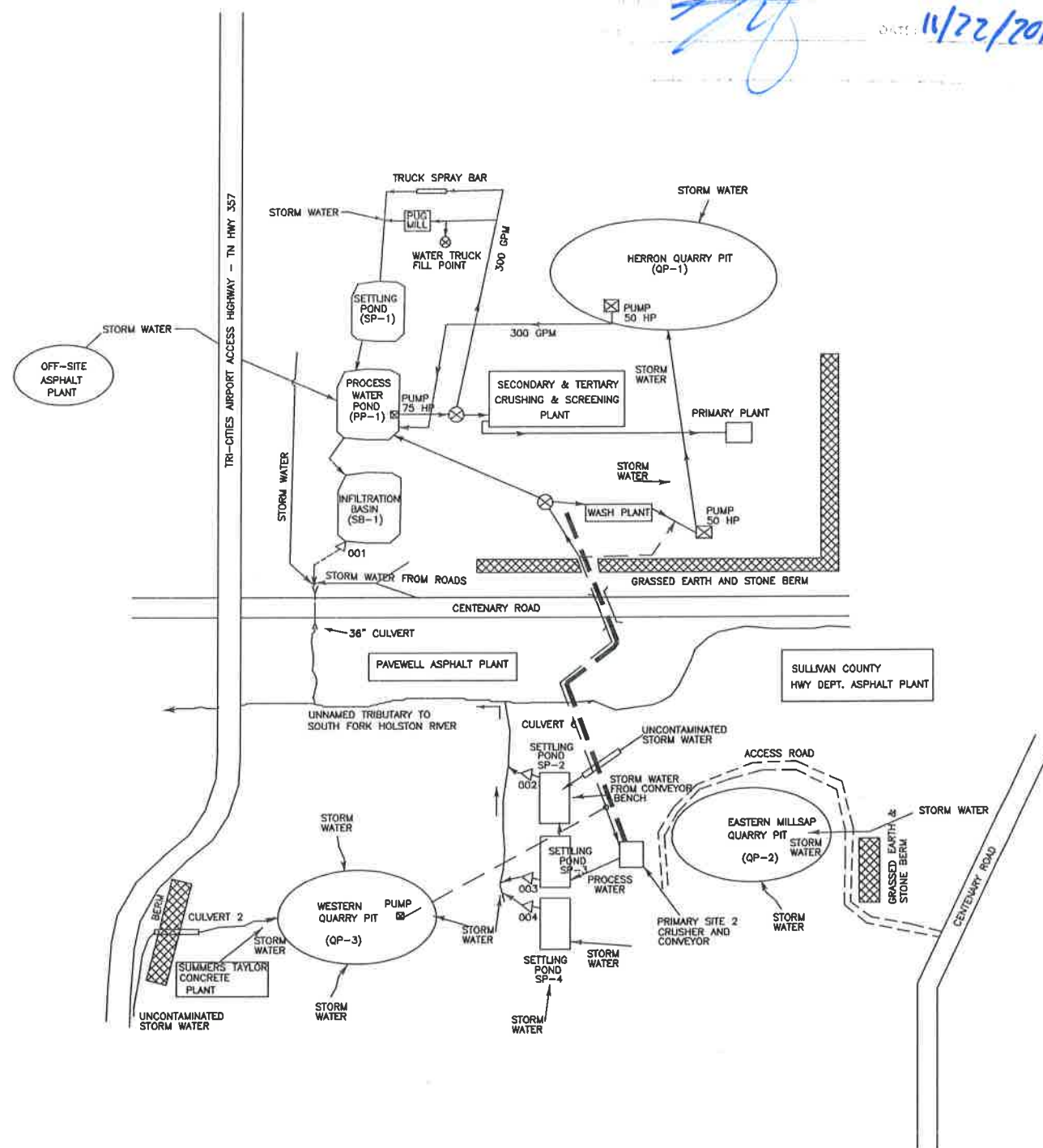
Expected drainage patterns for the next five years are shown with light blue arrows and the letter "M" on the Drainage Map. Quarry life is expected to exceed 20 years, therefore final drainage patterns after reclamation are impossible to determine with certainty at this time, however, potential final drainage patterns are shown with green arrows and the letter "R". Discharge and monitoring points 001, 002, 003, and 004 are shown with a red triangle.

Only drainage basins A, B, D, E, H, I, K, L, M, N, and P are affected or expected to be affected by mining and associated activities of Aggregates USA, LLC in the next 5 years. Their characteristics are as follows:

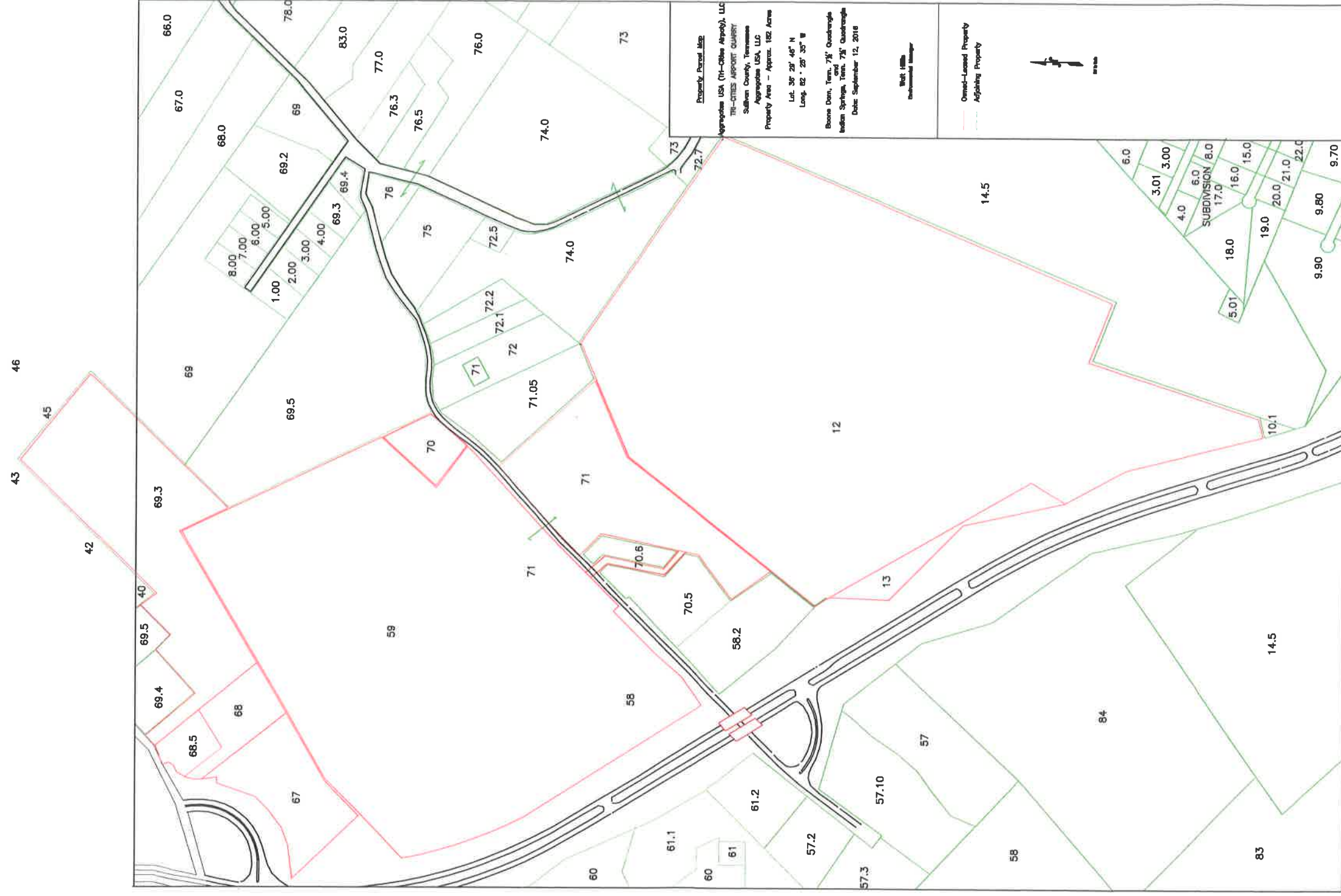
**Watershed "A"**

Watershed A is north of Centenary Road and contains about 4.47 acres. The watershed contains the undeveloped area on the eastern margin of the "old" mining area and grassed out slope of the boundary berm. Of the 4.47 acres, 0.86 acres is within the permit area, an old roadway. Water from this watershed is rainfall runoff and is directed into a valley and to the unnamed tributary.

ASBESTOS  
 DATE: 11/22/2010



EPA FORM 20 - WATER MANAGEMENT SCHEMATIC		
TRI-CITIES AIRPORT QUARRY - SULLIVAN CO. TN.		
AGGREGATES USA (TRI-CITIES AIRPORT), LLC		
36°29'45"N 86°25'35"W	9/9/2016	



APPROVED

TEENHSE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF WATER POLLUTION CONTROL MINING SECTION

FOR THE DIRECTOR

DATE: 1/22/2018



APPROVED

FOR THE DIRECTOR

DATE: 11/22/2011

LOCATION MAP--NTS

INTERSTATE 81

SHIPLEY FERRY ROAD

AIRPORT

PARKWAY

CENTENARY ROAD

SITE

SITE

DEVELOPMENT BOARD OF THE CITY OF KINGSFORD

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